


FORM PTO-1390 (Rev 11-2000)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTORNEY'S DOCKET NUMBER 85934.000008
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371			U.S. APPLICATION NO. (If known, see 37 CFR 1.5) <b>09/937083</b>
INTERNATIONAL APPLICATION NO. PCT/EP00/02501	INTERNATIONAL FILING DATE September 28, 2000	PRIORITY DATE CLAIMED 23 March, 1999	
TITLE OF INVENTION      SHAPED SEAL FOR SEALING A POWER-OPERATED CLOSING DEVICE			
APPLICANT(S) FOR DO/EO/US      Knut HOFMANN and BERND WESTERHOFF			
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:			
<ol style="list-style-type: none"> <li>1. <input checked="" type="checkbox"/> This is a FIRST submission of items concerning a filing under 35 U.S.C. 371.</li> <li>2. <input type="checkbox"/> This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. 371.</li> <li>3. <input checked="" type="checkbox"/> This express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.</li> <li>4. <input checked="" type="checkbox"/> The US has been elected by the expiration of 19 months from the priority date (Article 31).</li> <li>5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C.(c)(2)) <ol style="list-style-type: none"> <li>a. <input type="checkbox"/> Is attached hereto (required only is not communicated by the International Bureau).</li> <li>b. <input checked="" type="checkbox"/> has been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</li> </ol> </li> <li>6. <input checked="" type="checkbox"/> An English language translation of the International Application into English (35 U.S.C. 371(c)(2)). <ol style="list-style-type: none"> <li>a. <input checked="" type="checkbox"/> Is attached hereto.</li> <li>b. <input type="checkbox"/> has been submitted under 35 U.S.C. 154(d)(4).</li> </ol> </li> <li>7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) <ol style="list-style-type: none"> <li>a. <input type="checkbox"/> Are attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input type="checkbox"/> have been communicated by the International Bureau</li> <li>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li> <li>d. <input type="checkbox"/> have not been made and will not be made.</li> </ol> </li> <li>8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).</li> <li>9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).</li> <li>10. <input type="checkbox"/> An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).</li> </ol>			
Items 11 to 20 below concern document(s) or information included:			
<ol style="list-style-type: none"> <li>11. <input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98</li> <li>12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</li> <li>13. <input checked="" type="checkbox"/> A FIRST preliminary amendment</li> <li>14. <input type="checkbox"/> A SECOND or SUBSEQUENT preliminary amendment</li> <li>15. <input type="checkbox"/> A substitute specification.</li> <li>16. <input type="checkbox"/> A change of power of attorney and/or address letter.</li> <li>17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821 - 1.825.</li> <li>18. <input type="checkbox"/> A second copy of the published international application under 35 U.S.C. 154(d)(4).</li> <li>19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).</li> <li>20. <input type="checkbox"/> Other items or information:</li> </ol>			

U.S. APPLICATION NO. (Known) <b>09/937083</b> (37 CFR 1.5)		INTERNATIONAL APPLICATION NO. PCT/EP00/02501		ATTORNEY'S DOCKET NUMBER 85934.000008					
21. <input checked="" type="checkbox"/> The following fees are submitted									
<b>BASIC NATIONAL FEE (37 CFR 1.492(a) (1) - (5))</b>  Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO..... <b>\$1000.00</b>  International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO..... <b>\$860.00</b>  International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO..... <b>\$710.00</b>  International preliminary examination fee paid to USPTO (37 CFR 1.482) but all claims did not satisfy provisions of PCT Article 33(1)-(4)..... <b>\$690.00</b>  International preliminary examination fee paid to USPTO (37 CFR 1.482) And all claims satisfied provisions of PCT Article 33(1)-(4)..... <b>\$100.00</b>  <b>ENTER APPROPRIATE BASIC FEE AMOUNT</b> =				<b>CALCULATIONS PTO USE ONLY</b>          <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: right;"><b>\$860.00</b></td> <td style="width:50%;"></td> </tr> <tr> <td style="text-align: right;"><b>\$0.00</b></td> <td></td> </tr> </table>		<b>\$860.00</b>		<b>\$0.00</b>	
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Surcharge of <b>\$130.00</b> for furnishing the oath or declaration later than months from the earliest claimed priority date (37 CFR 1.492(e)). <input type="checkbox"/> 20 <input type="checkbox"/> 30				<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: right;"><b>\$0.00</b></td> <td style="width:50%;"></td> </tr> </table>		<b>\$0.00</b>			
<b>\$0.00</b>									
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE						
Total Claims	9	0	X <b>\$18.00</b>						
Independent Claims	1 =	0	X <b>\$78.00</b>	<b>\$0.00</b>					
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ <b>\$270.00</b>	<b>\$0.00</b>					
<b>TOTAL OF ABOVE CALCULATIONS</b>				=	<b>\$860.00</b>				
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.				+	<b>\$0.00</b>				
<b>SUBTOTAL</b>				=	<b>\$860.00</b>				
Processing fee of <b>\$130.00</b> for furnishing the English translation later than Months from the earliest claimed priority date (37 CFR 1.492(f)). <input type="checkbox"/> 20 <input type="checkbox"/> 30				+	<b>\$0.00</b>				
<b>TOTAL NATIONAL FEE</b>				=	<b>\$860.00</b>				
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). <b>\$40.00</b> per property				+	<b>\$0.00</b>				
<b>TOTAL FEES ENCLOSED</b>				=	<b>\$860.00</b>				
				<b>Amount to be refunded:</b>	\$				
				<b>Charged:</b>	\$				
a. <input checked="" type="checkbox"/> A check in the amount of <u>\$860.00</u> to cover the above fees is enclosed									
b. <input type="checkbox"/> Please charge my Deposit Account No. _____ in the amount of _____ to cover the above fees. duplicate copy of this sheet is enclosed.									
c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to chare any additional fees which may be required, or credit any overpayment to Deposit Account No. <u>033875</u> . A duplicate copy of this sheet is enclosed.									
d. <input type="checkbox"/> Fees are to be charged to a credit card. <b>WARNING:</b> Information on this form may become public. <b>Credit card information should not be included on this form.</b> Provide credit card information and authorization on PTO-2038.									
<b>NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.</b>									
SEND ALL CORRESPONDENCE TO:									
 SIGNATURE									
Stephen B. Salai NAME									
26,990 REGISTRATION NUMBER									

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Metzeler Automotive Profiles  
GmbH

Atty. Docket: 85934.000008

Serial No.: not assign yet

Examiner:

Filed:

Art Unit:

Title: SHAPED SEAL FOR SEALING A POWER-OPERATED CLOSING DEVICE

FIRST PRELIMINARY AMENDMENT

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Prior to examining the application please amend the claims to read as follows, a copy of the claims showing the changes is attached as Attachment A.

CLAIMS

1. A shaped seal for sealing a power-operated closing device, including an anti-trap guard comprising at least two electrically conductive portions spaced away from each other, whose contact triggers a switching action for activating the drive assembly of said closing device, at least one of said portions being electrically conductive connected to a metallic conductor to reduce the volume resistivity, characterized in that said metallic conductor is configured as a carrier for securing said shaped seal and/or as a flange or frame to which said shaped seal is securable.
2. The shaped seal as set forth in claim 1, characterized in that said carrier contacts said electrically conductive portion.
3. The shaped seal as set forth in claim 1, characterized in that said carrier is surrounded partly or fully by said electrically conductive portion.
4. The shaped seal as set forth in claim 1, characterized in that said carrier is provided with recesses.
5. The shaped seal as set forth in claim 1, characterized in that said electrically conductive portion extends up to the outer side of said shaped seal.

6. The shaped seal as set forth in claim 5, characterized in that said electrically conductive portion comprises lips or tabs for securing said shaped seal to said flange or to said frame.

7. The shaped seal as set forth in claim 1, characterized in that said anti-trap guard portion comprises a hollow chamber in which at least one of said electrically conductive portions is arranged.

8. The shaped seal as set forth in claim 7, characterized in that said hollow chamber serves to seal said powered closing device.

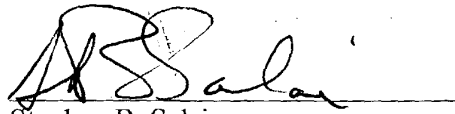
9. The shaped seal as set forth in claim 1, characterized in that said electrically conductive portion provided separate from said carrier, said flange, or said frame comprises a metallic conductor.

REMARKS

The forgoing Preliminary Amendment removes the multiple dependent claims.

Favorable action is requested.

Respectfully submitted,



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Dated: September 21, 2001

Shaped Seal for Sealing a Power-Operated Closing Device  
(amended) Description

The present invention relates to a shaped seal or sealing profile for weathersealing a powered closing device, including an anti-trap guard comprising at least two electrically conductive portions spaced away from each other, whose contact triggers a switching action for activating the drive assembly of the closing device in which at least one of these portions is electrically conductive connected to a metallic conductor to reduce the volume resistivity.

A generic sealing profile is known from DE 197 20 713 C1 originated to the same Applicant. This known sealing profile comprises two electrically conductive portions spaced away from each other, in each of which a metallic conductor is embedded to reduce the volume resistivity. The disadvantage in making use of these two metallic conductors is that they take up a lot of room, relatively, and add to the price and weight of the sealing profile whilst complicating production since both metallic conductors need to be coextruded.

Furthermore, FR 1.549.640 A discloses an anti-trap guard for a powered window wherein a sealing profile is incorporated in a frame. This sealing profile comprises an electrically conductive insert which contacts the frame configured as an electrical conductor in a trapped situation so as to trigger a switching action. In the trapped situation the insert, together with the sealing profile, is shifted relative to the frame, wherein flexible tongues on the sealing profile ensure that the sealing profile returns to its original

position. Actual practice has shown such a configuration to be unsatisfactory.

It is thus the objective of the present invention to sophisticate a generic sealing profile to achieve cost-effective production for a low price, weight and space requirement.

(continuation as of page 2 of the original description)

This is of advantage when a carrier of an electrically non-conductive material, or a carrier insulated from the electrically conductive portion, is used. The recesses also make it possible in these cases to produce an electrically conductive connection from one side of the carrier to the other.

Advantageously the electrically conductive portion extends up to the outer side of the sealing profile to thus produce an electrical contact with the flange or frame to which the sealing profile can be secured without an additional electrical conductor needing to be provided, i.e. the sealing profile merely requiring to be secured, as usual, to the flange or frame.

In another advantageous aspect, the electrically conductive portion comprises lips or tabs for securing the sealing profile to the flange or frame. These lips or tabs are pressed into contact with the flange or frame to produce a good electrical contact so that the volume resistivity of the sealing profile can be reliably diminished.

In another advantageous further embodiment the anti-trap guard portion comprises a hollow chamber in which at least one of the electrically conductive portions is arranged. Advantageously, one of the electrically conductive portions is arranged at the inner side of the hollow chamber whilst the other protrudes into the hollow chamber to thus achieve a reliable contact between the electrically conductive portions, irrespective of the anti-trap guard.

In yet another advantageous aspect the hollow chamber serves to weatherseal the powered closing device. The anti-trap guard portion of the sealing profile in accordance with the invention then satisfies a dual function whilst eliminating the need for additional elements for weather-sealing the closing device in thus further reducing the space requirement

and weight as well as the price of the sealing profile in accordance with the invention.

Advantageously the electrically conductive portion, provided separate from the carrier, flange or frame, comprises a metallic conductor, as a result of which the volume resistivity in this portion too is considerably reduced.

The invention will now be detailed by way of example embodiments as shown in the drawing diagrammatically in which:

- Fig. 1 is a cross-section through a first embodiment of the sealing profile in accordance with the invention;
- Fig. 2 is a cross-section through a second embodiment of the sealing profile in accordance with the invention;
- Fig. 3 is a cross-section through a third embodiment of the sealing profile in accordance with the invention;
- Fig. 4 is a cross-section through a fourth embodiment of the sealing profile in accordance with the invention; and
- Fig. 5 is a system diagram of the principle involved.

Referring now to Fig. 1 there is illustrated a first embodiment of a sealing profile 10 in accordance with the invention. The sealing profile 10 comprises a clamping portion 11 as well as a sealing portion 12. Further provided is a cover 13 with which components (not shown) are covered after the sealing profile 10 has been secured in place. For securing it in place, the clamping portion 11 comprises a recess 14 into which several lips 15 and protuberances 16 protrude. The recess 14 is clasped by a carrier 17 having a U-shaped cross-section. For securing it in place, the recess 14 of the clamping portion 11 is mounted on a flange as evident from Fig. 5. In this arrangement the lips 15 and protuberances 16 are



firmly pressed against the flange in preventing release of the sealing profile 10.

The sealing portion 12 comprises a hollow chamber 18 which at its side facing a window pane 25 is provided with a friction-reducing coating 23, more particularly a flake coating. The window pane 25 is movable in the direction of the arrows 24. When the window pane 25 is closed the hollow chamber 18 is deformed so that the desired weatherseal is furnished.

The sealing profile 10 comprises further an anti-trap guard portion 32. The anti-trap guard portion 32 includes two electrically conductive portions 19, 20 spaced away from each other by an interspace 21. As soon as an object is trapped on closing of the window pane 25, the portion 19 is moved in the direction of the portion 20. Contact of the two portions 19, 20 triggers a switching action for activating the drive assembly of the window pane 25. This switching action can either halt or reverse the movement of the window pane 25.

The portions 19, 20 are made to advantage by adding an electrically conductive material to the base material of the sealing profile 10 by means of coextrusion. To reduce the volume resistivity the portions 19 comprises a metallic conductor 22. The portion 20 partly surrounds the carrier 17 configured as a metallic conductor, as a result of which the volume resistivity of the electrically conductive portion 20 is likewise diminished. No additional metallic conductor is needed for the portion 20.

In the embodiment as shown in Fig. 1 all electrically conductive components 17, 22 and portions 19, 20 are surrounded by the electrically non-

conductive material of the sealing profile 10. The sealing profile 10 is thus electrically neutral as regards its surroundings.

Three further embodiments of a sealing profile 30, 40, 50 in accordance with the invention are shown in Figs. 2 to 4, whereby like or functionally identical components are identified by the same reference numerals as in Fig. 1, for the description of which, reference is made to the above comments to avoid tedious repetition.

Referring now to Fig. 2 there is illustrated how the sealing profile 30 comprises a carrier 27 which is totally surrounded by the electrically conductive portion 20. The carrier 27 is provided with recesses 28 through which the material of the electrically conductive portion 20 penetrates. The contact surface area between the electrically conductive portion 20 and the carrier 27 is substantially increased by the recesses 28. Furthermore, any potential difference can be conducted from one side of the carrier 27 through the recesses 28 to the other side of the carrier 27 solely through the portion 20. Even when not using a non-conductive carrier 27 the inner side and outer side of the carrier 27 are electrically interconnected by the recesses 28.

The electrically conductive portion 20 extends up to the outer side of the sealing profile 30. As soon as the sealing profile 30 is secured to a flange or frame, the lips 15 and protuberances 16 of the clamping portion 11 come into electrically conductive contact with the flange or frame to thus substantially reduce the volume resistivity of the electrically conductive portion 20, this further making it possible to use a carrier 27 of a non-conductive material, such as plastics, for example.

Referring now to Fig. 3 there is illustrated how the sealing profile 40 comprises a hollow chamber 18 in the anti-trap guard portion 32. Arranged in the hollow chamber 18 are the electrically conductive portions 19, 20, the portion 20 contacting the carrier 17. Deformation of the hollow chamber 18 brings the portions 19, 20 into contact with each other in triggering the switching action as described above.

At the same time the hollow chamber 18 of the anti-trap guard portion 32 serves to seal off a powered closing device (not shown in Fig. 3). More particularly the sealing profile 40 as shown in Fig. 3 can be put to use to weatherseal an automotive sunroof.

Referring now to Fig. 4 there is illustrated a sealing profile 50 in accordance with the invention which is inserted into a substantially U-shaped frame 51 made of an electrically conductive material. The sealing profile 50 comprises a series of lips 52 having a friction-reducing coating 23 for sealing contact with the window pane 25. Tabs 53, 54 serve to secure the sealing profile 50. The electrically conductive portion 20 of the anti-trap guard portion 32 clasps the frame 51 in part and extends up to the outer side of the sealing profile 50.

The sealing profiles 10, 30, 50 as shown in Figs. 1, 2 and 4 are particularly suitable for weathersealing automotive side windows. Referring now to Fig. 5 there is illustrated a system diagram of the sealing profile 30 in the fitted condition. The sealing profile 30 is mounted on a flange 26 by its clamping portion 11. The flange 26 is thus in electrically conductive contact with the electrically conductive portion 20 via the lips 15 and protuberances 16. As is usual in automotive applications, the flange 26 is grounded, whilst the electrically conductive portions 19 of the sealing profile 30 is connected to the anode of a voltage source (not shown). As

soon as the window pane 25 is lifted and the anti-trap guard portion 32 deformed, the two portions 19, 20 come into contact with each other, resulting in a switching action which is signalled to a controller 31. The controller 31 correspondingly controls a motor 29 to move the window pane 25 which halts or reverses the movement of the window pane 25.

The sealing profile 10, 30, 40, 50 in accordance with the invention permits total elimination of one of the metallic conductors hitherto required, without detrimenting the anti-trap guard and sealing function. Instead, the space requirement, weight, costs and complications in production are all substantially reduced, as compared to known sealing profiles.

## ATTACHMENT A

## Claims

1. A shaped seal (10; 30; 40; 50) for sealing a power-operated closing device (25), including an anti-trap guard (32) comprising at least two electrically conductive portions (19, 20) spaced away from each other, whose contact triggers a switching action for activating the drive assembly (29) of said closing device (25), at least one of said portions (19, 20) being electrically conductive connected to a metallic conductor (17; 26; 27; 51) to reduce the volume resistivity, characterized in that said metallic conductor is configured as a carrier (17; 27) for securing said shaped seal (10; 30; 40) and/or as a flange (26) or frame (51) to which said shaped seal (10; 30; 40; 50) is securable
2. The shaped seal as set forth in claim 1, characterized in that said carrier (17) contacts said electrically conductive portion (20).
3. The shaped seal as set forth in claim 1, characterized in that said carrier (17) is surrounded partly or fully by said electrically conductive portion (20).
4. The shaped seal as set forth in any of the claims 1 ~~to 3~~, characterized in that said carrier (27) is provided with recesses (28).
5. The shaped seal as set forth in any of the claims 1 ~~to 4~~, characterized in that said electrically conductive portion (20) extends up to the outer side of said shaped seal (30; 50).

6. The shaped seal as set forth in claim 5, characterized in that said electrically conductive portion (20) comprises lips (15) or tabs (54) for securing said shaped seal (30) to said flange (26) or to said frame (51).
7. The shaped seal as set forth in any of the claims 1 to 6, characterized in that said anti-trap guard portion (32) comprises a hollow chamber (18) in which at least one of said electrically conductive portions (19; 20) is arranged.
8. The shaped seal as set forth in claim 7, characterized in that said hollow chamber serves to seal said powered closing device (25).
9. The shaped seal as set forth in any of the claims 1 to 8, characterized in that said electrically conductive portion (19) provided separate from said carrier (17; 27), said flange (26), or said frame (51) comprises a metallic conductor (22).

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JC16 Rec'd PCT/PTO SEP 21 2001

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United States Postal Service as Express Class Mail No EL 871340865 US  
in an envelope addressed to Assistant Commissioner for Patents, Washington,  
D.C. 20231 on September 21, 2001*

*Cathy Boyen*  
Cathy Boyen



**PCT**  
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INTERNATIONALE ANMELDUNG VERÖFFENTLICHT NACH DEM VERTRAG ÜBER DIE  
INTERNATIONALE ZUSAMMENARBEIT AUF DEM GEBIET DES PATENTWESENS (PCT)

<p>(51) Internationale Patentklassifikation <sup>7</sup> : <b>E05F 15/00, B60J 10/00</b></p>	<b>A1</b>	<p>(11) Internationale Veröffentlichungsnummer: <b>WO 00/57013</b></p> <p>(43) Internationales Veröffentlichungsdatum: 28. September 2000 (28.09.00)</p>
<p>(21) Internationales Aktenzeichen: PCT/EP00/02501</p> <p>(22) Internationales Anmeldedatum: 21. März 2000 (21.03.00)</p> <p>(30) Prioritätsdaten: 199 13 105.8      23. März 1999 (23.03.99)      DE</p> <p>(71) Anmelder (für alle Bestimmungsstaaten ausser US): METZELER AUTOMOTIVE PROFILES GMBH [DE/DE]; Breitenzger Strasse 133, D-88131 Lindau (DE).</p> <p>(72) Erfinder; und (75) Erfinder/Anmelder (nur für US): HOFMANN, Knut [DE/DE]; Alpesteinweg 7, D-88239 Wangen (DE). WESTERHOFF, Bernd [DE/DE]; Karl-Casper-Strasse 5, D-88085 Langenargen (DE).</p> <p>(74) Anwälte: PREISSNER, Nicolaus usw.; Michelis &amp; Preissner, Haimhauserstrasse 1, D-80802 München (DE).</p>		<p>(81) Bestimmungsstaaten: JP, US, europäisches Patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).</p> <p><b>Veröffentlicht</b> <i>Mit internationalem Recherchenbericht.</i></p>

(54) Title: SHAPED SEAL FOR SEALING A POWER-OPERATED CLOSING DEVICE

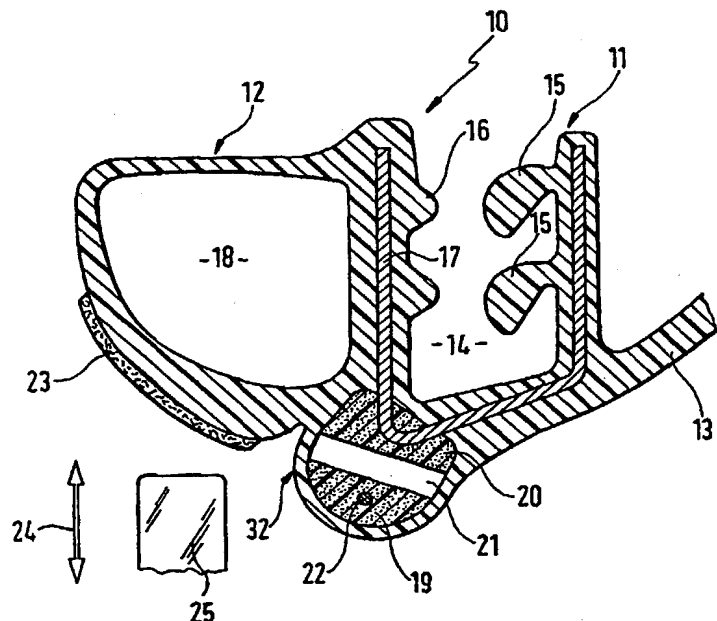
(54) Bezeichnung: DICHTUNGSPROFIL ZUM ABDICHTEN EINER KRAFTBETÄTIGTEN SCHLIESSEINRICHTUNG

(57) Abstract

The invention relates to a shaped seal (10) for sealing a power-operated closing device (25) comprising a jam-protection zone (32) which has at least two electrically conductive areas (19, 20) situated at a distance from each other. According to the invention, to save space and reduce weight and cost the carrier (17) is used as a metallic conductor for the conductive area (20) so as to reduce volume resistance. Alternatively or in addition thereto a frame can be used to which the shaped seal (10) can be fixed.

(57) Zusammenfassung

Die vorliegende Erfindung betrifft ein Dichtungsprofil (10) zum Abdichten einer kraftbetätigten Schliesseinrichtung (25) mit einem Einklemmschutzbereich (32), der mindestens zwei zueinander beabstandete, elektrisch leitfähige Bereiche (19, 20) aufweist. Erfindungsgemäss wird zur Verringerung des Platzbedarfs, des Gewichts und der Kosten der Carrier (17) als metallischer Leiter für den Bereich (20) zur Verringerung des Durchgangswiderstands genutzt. Alternativ oder zusätzlich kann ein Rahmen verwendet werden, an dem das Dichtungsprofil (10) befestigbar ist.





1/3

Fig. 1

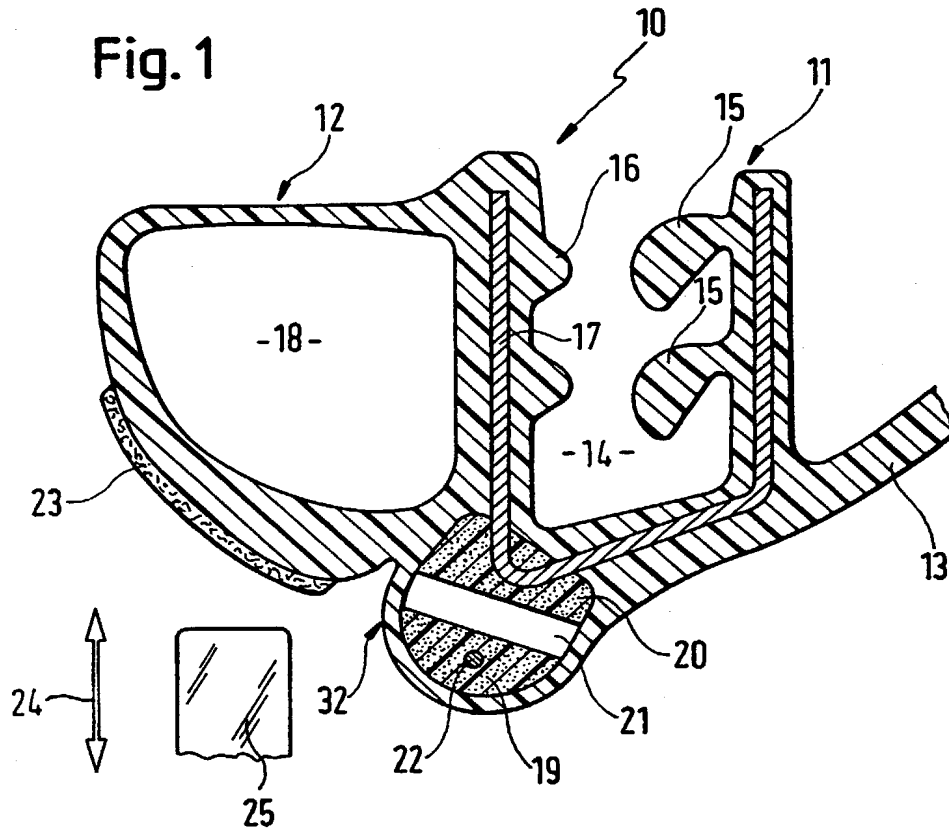
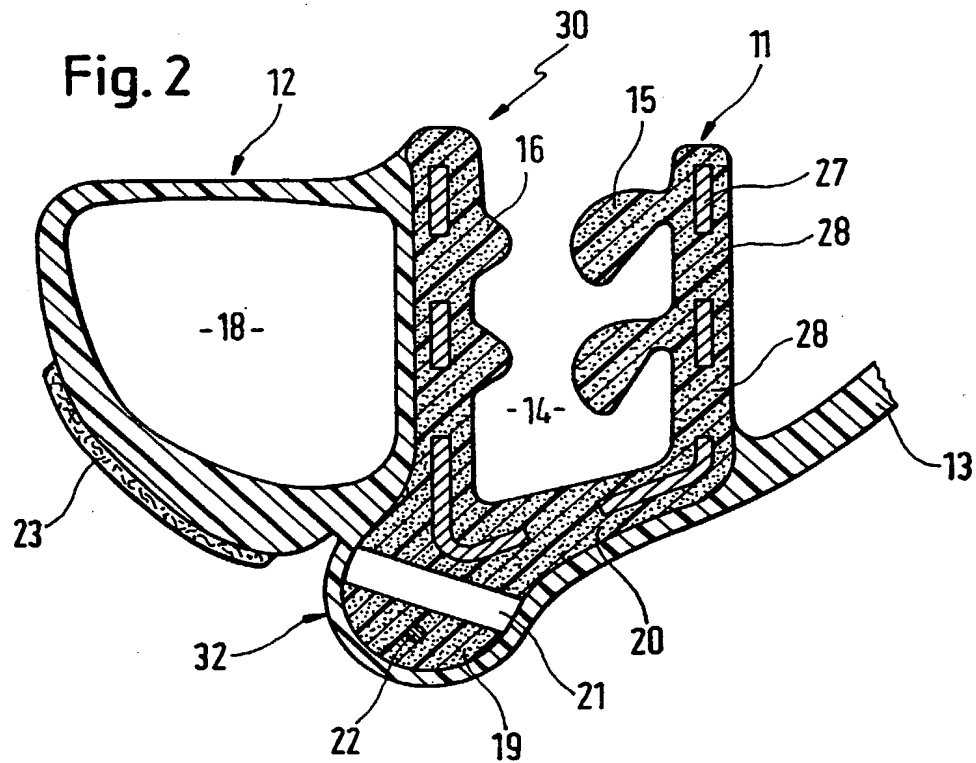


Fig. 2



2/3

Fig. 3

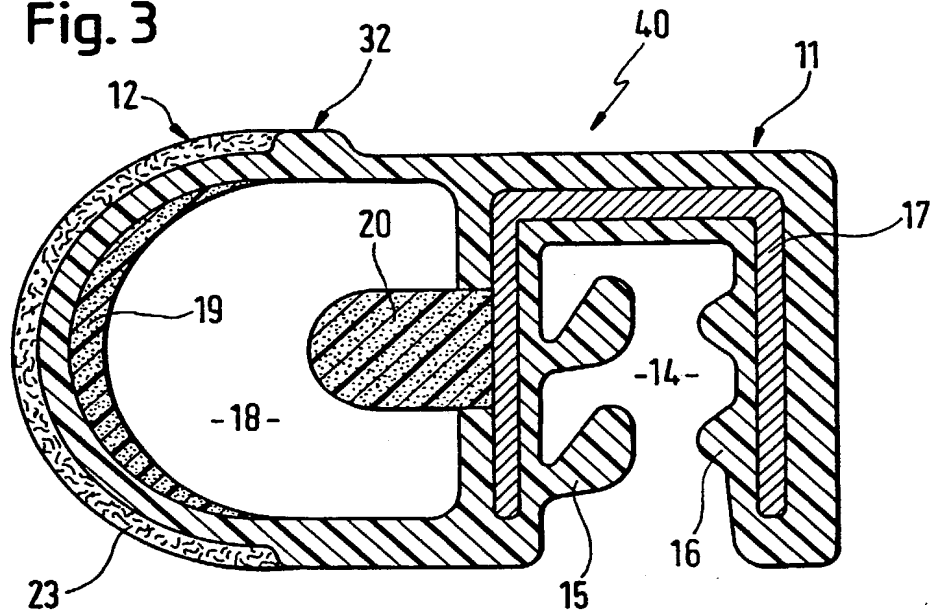


Fig. 4

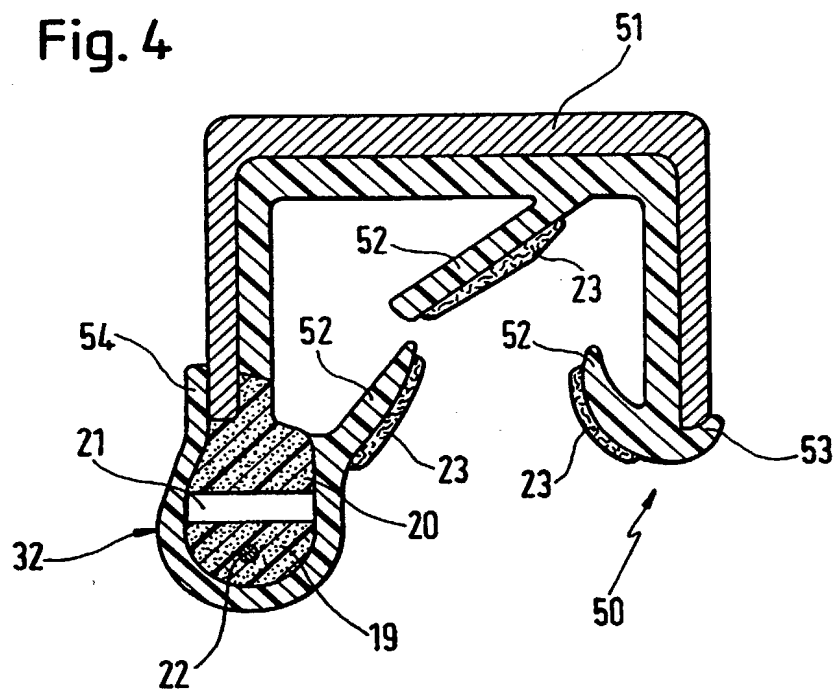
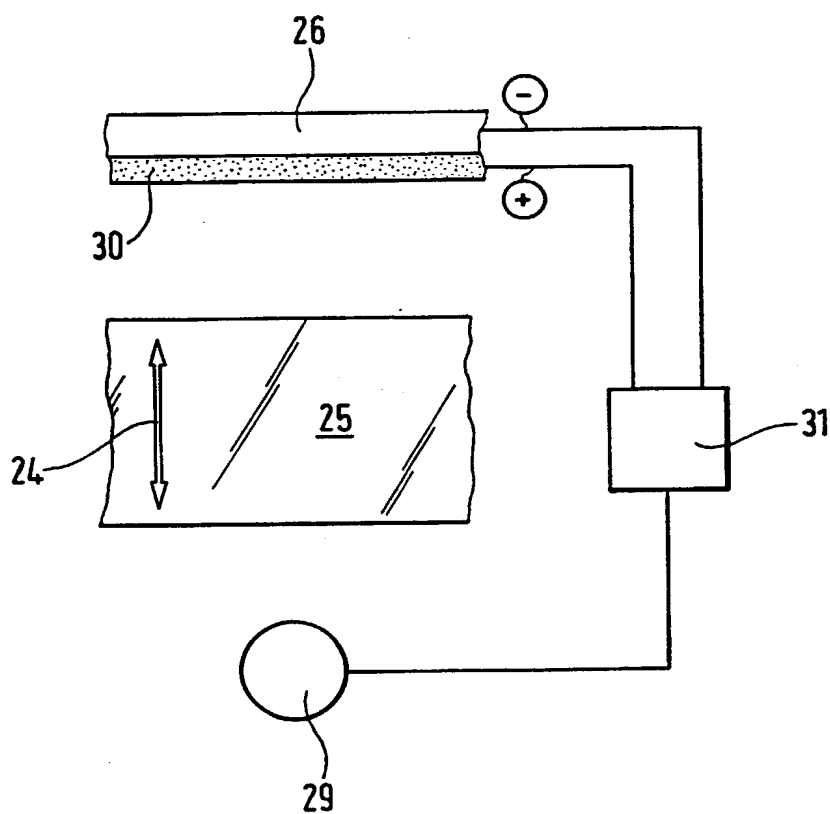


Fig. 5



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PTO/SB/01 (12/97)

Approved for use through 9/30/00. OMB 0651-0032  
 Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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# DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)

☐ Declaration Submitted with Initial Filing  
☒ Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)

Attorney Docket Number 85934.000008

First Named Inventor Hofmann, Knut

**COMPLETE IF KNOWN**

Application Number 09/937,083

Filing Date March 21, 2000

Group Art Unit

Examiner Name

**As a below named inventor, I hereby declare that:**

My residence, post office address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

SHAPED SEAL FOR SEALING A POWER-OPERATED CLOSING DEVICE

(Title of the Invention)

the specification of which

☐ is attached hereto

OR

☒ was filed on (MM/DD/YYYY) March 21, 2000 As United States Application Number or PCT International

Application Number 09/937,083 and was amended on (MM/DD/YYYY) (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT International application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT International application having a filing date before that of the application which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached? YES	Certified Copy Attached? NO
PCT/E00/02501	PCT	March 21, 2000	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
DE 199 13105.8	Germany	March 23, 1999	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto:

I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below.

Application Number (s)	Filing Date (MM/DD/YYYY)	<input type="checkbox"/> Additional provisional application numbers are listed on a supplemental priority data sheet Patent and Trademark Office/SB/02B attached hereto

[Page 1 of 3]

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Please type a plus sign (+) inside this box.



PTO/SB/01 (12/97)

Approved for use through 9/30/00. OMB 0651-0032  
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**DECLARATION - UTILITY OR DESIGN PATENT APPLICATION**

I hereby claim the benefit under 35 U.S.C. 120 of any United States application(s), or 365© of any PCT International application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application

U.S. Patent Application or PCT Parent Number	Parent Filing Date (MM/DD/YYYY)	Parent Patent Number (if applicable)
PCT/EP00/02501	03/21/00	

☐ Additional U.S. or PCT International application numbers are listed on a supplemental priority data sheet Patent and Trademark Office-SB/02B attached

As a named inventor, I hereby appoint the following registered practitioner(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith.

☒ Customer Number 23387  
OR  
☐ Registered practitioner(s) name/registration number listed below



Name	Registration Number	Name	Registration Number

☐ Additional registered practitioner(s) named on supplemental Registered Practitioner Information sheet Patent and Trademark Office/SB/02C attached hereto.

Direct all correspondence to: ☒ Customer Number or Bar Code Label



OR ☐ Correspondence address below

Name			
Address			
Address			
City	State	ZIP	
Country	Telephone	Fax	

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Name of Sole or First Inventor: ☐ A Petition has been filed for this unsigned inventor

Given Name (first and middle [if any])

Family Name or Surname

Knut

Hofmann

Inventor's Signature				Date	
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City	88239 Wangen	State		ZIP	88239
				Country	Germany



Additional inventors are being named on the

Supplemental Additional Inventor(s) sheet(s) Patent and Trademark Office/SB/02A attached hereto

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<b>DECLARATION</b>				<b>ADDITIONAL INVENTOR(S)</b>			
				<b>Supplemental Sheet</b>			
				Page 3 of 3			
<b>Name of Additional Joint Inventor, if any:</b>				<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name (first and middle [if any])				Family Name or Surname			
Bernd				Westerhoff			
<b>Inventor's Signature</b>				<b>Date</b>			
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<b>Name of Additional Joint Inventor, if any:</b>				<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name (first and middle [if any])				Family Name or Surname			
<b>Inventor's Signature</b>				<b>Date</b>			
<b>Residence: City</b>		<b>State</b>		<b>Country</b>		<b>Citizenship</b>	
<b>Post Office Address</b>							
<b>Post Office Address</b>							
<b>City</b>		<b>State</b>		<b>ZIP</b>		<b>Country</b>	
<b>Name of Additional Joint Inventor, if any:</b>				<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name (first and middle [if any])				Family Name or Surname			
<b>Inventor's Signature</b>				<b>Date</b>			
<b>Residence: City</b>		<b>State</b>		<b>Country</b>		<b>Citizenship</b>	
<b>Post Office Address</b>							
<b>Post Office Address</b>							
<b>City</b>		<b>State</b>		<b>ZIP</b>		<b>Country</b>	
<b>Name of Additional Joint Inventor, if any:</b>				<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name (first and middle [if any])				Family Name or Surname			
<b>Inventor's Signature</b>				<b>Date</b>			
<b>Residence: City</b>		<b>State</b>		<b>Country</b>		<b>Citizenship</b>	
<b>Post Office Address</b>							
<b>Post Office Address</b>							
<b>City</b>		<b>State</b>		<b>ZIP</b>		<b>Country</b>	

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